



<b>Name</b>	Oleksandr Zabolotnyi
<b>Department/Faculty Position,</b>	Dean of the Aircraft Control Systems faculty, professor of the Intellectual Instrumentation Systems and Quality Management department in National Aerospace University «Kharkiv Aviation Institute»
<b>Academic Degree, Academic Title</b>	Doctor of engineering sciences, professor
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<b>ResearchGate:</b>	

## EDUCATION:

OCBITA:

### Basic education (university, major, year of graduation):

Specialist in Information-Measuring Systems, National Aerospace University «Kharkiv Aviation Institute», [01.09.1995 – 01.03.2001], diploma with honors

### Postgraduate/Doctoral studies:

Professor of the Intellectual Instrumentation Systems and Quality Management department, [21.02.2024]

Doctor of engineering sciences in the field of Instruments and Methods of Control and Substance Composition Determination, [15.10.2019]

Associate professor of the Aviation Devices and Measurements department, [20.01.2011]

Candidate of engineering sciences in the field of Automation of Technological Processes, [15.12.2004]





### **Additional training, certification programs:**

Challenges of Distance Learning When Obtaining Higher Engineering Education. Subject area: electronics, automation and electronic communications. Scientific and pedagogical internship at Baltic International Academy (Riga, Latvia) from November 6 to December 17, 2023, 6 ECTS credits (180 hours). Certificate No TSI-061702-BSA from 17/12/2023

European experience in customs goods examination. Erasmus+ program course, 6 ECTS credits (180 hours) (Certificate No. 101127747 – EDETMS – ERASMUS-JMO-2023-HEI-TCH-RSCH)

National Aerospace University “Kharkiv Aviation Institute”, certificate of advanced training ПК 02066769/000930-23, comprehensive advanced training, 22.01.2021...19.06.2023, 6 credits (180 hours)

Theoretical foundations of teaching in modern conditions. Scientific and pedagogical internship, ISMA The University of Applied Sciences (Riga, Latvia) from February 4, 2021 until March 4, 2021. 6 ECTS credits (180 hours). Certificate No 01-18/50-21 from 09/03/2021.

Experience of EU countries in reforming education in the field of technical sciences. Scientific and pedagogical internship at the Czech Technical University (Prague) in the field of “Technical Sciences” in the amount of 6 credits (180 hours) from January 20 to February 28, 2020.

English language certificate (level not lower than B2) Certificate number B0080906, date of issue 01/08/2019 (Cambridge English level 1 Certificate in ESOL International (First))

### **WORK EXPERIENCE:**

**Professional Career (Workplace, Years, Position):**





**National Aerospace University «Kharkiv Aviation Institute»**, [01.03.2024 – Current], professor of the Intellectual Instrumentation Systems and Quality Management department.

**National Aerospace University «Kharkiv Aviation Institute»**, [01.12.2015 – Current], Dean of the Aircraft Control Systems faculty.

**National Aerospace University «Kharkiv Aviation Institute»**, [15.02.2007 – 30.11.2015], Associate professor of the Aviation Devices and Measurements department.

**National Aerospace University «Kharkiv Aviation Institute»**, [01.09.2005 – 14.02.2007], senior lecturer, Aviation Devices and Measurements department.

**National Aerospace University «Kharkiv Aviation Institute»**, [07.07.2004 – 31.08.2005], assistant professor, Aviation Devices and Measurements department.

**National Aerospace University «Kharkiv Aviation Institute»**, [01.05.2004 – 30.06.2004], engineer, Aviation Devices and Measurements department.

**National Aerospace University «Kharkiv Aviation Institute»**, [01.05.2001 – 01.05.2004], postgraduate studies, Aviation Devices and Measurements department.

## **RESEARCH ACTIVITIES:**

### **Main Research Areas:**

Development of the theory of dielectric moisture measurement, development of new and improvement of existing methods and techniques for determining moisture content, synthesis of mathematical models that allow analytical description of the influence of various factors on the measurement result, development of more sophisticated primary and secondary measuring transducers for moisture content.

Research of the new principles for the production of water-fuel emulsions with the aim of improving the accuracy of dispersion phase dosing and ensuring the long-term stability of newly produced emulsions.

Development and manufacturing of specialized stands for FPV drones testing and configuring based on a three-degree gimbal rig.

### **Number of Publications (Scopus, WoS, others):**





Over 170 scientific publications, including indexed articles in Scopus and Web of Science databases; multiple conference proceedings and applied research outputs.

### **Monographs, Textbooks:**

Co-author of 1 monograph and 17 textbooks in the fields of the theory of dielectric moisture measurement, metrology and measurements, standardization, measuring instruments construction and technology.

### **Participation in Scientific Conferences:**

Regular participant and speaker at international and national scientific conferences:  
Integrated Computer Technologies in Mechanical Engineering – ICTM  
International Scientific Symposium Metrology and Metrology Assurance (MMA)  
International Conference on Electronics and Nanotechnology (ELNANO)  
International Scientific Conference ‘Transport Means’

### **TEACHING ACTIVITIES:**

#### **Courses Taught:**

Metrology and theory of measurements;  
Rules of technical regulation in European Union;  
Technical foreign language;  
Six Sigma methodology in project management.

#### **Author Courses, Academic Programs:**

Rules of technical regulation in European Union;  
Technical foreign language;  
Six Sigma methodology in project management.

#### **Methodological Materials, Textbooks:**

1. Zabolotnyi V. A., Zabolotnyi O. V. Pidhotovchi ta skladalni roboty pry vyhotovlenni vymiriuvalnoi tekhniki i system keruvannia : navch. posib. do lab. praktykumu. Kharkiv: Nats. aerokosm. un-t im. M.Ye. Zhukovskoho «Kharkiv. aviats. in-t», 2025. – 56 s.
2. Analiz konstruktsii, skladannia ta vyprobuvannia elektronnykh bloktiv vymiriuvalnoi tekhniki i system keruvannia : metod. rek. do vykonannia laboratornykh robot / uklad.: V.A. Zabolotnyi, O.V. Zabolotnyi. Kharkiv: KhAI, 2024. – 52 s.



3. Metrolohii i teoriia vymiriuvan: metod. rek. do vykonannia laboratornykh robit / uklad.: O.V. Zabolotnyi V.A. Zabolotnyi, Kharkiv: KhAI, 2021. – 95 s.
4. Tekhnolohiia vyhotovlennia zasobiv vymiriualnoi tekhniky (mikroelektronika): metod. rek. do vykonannia prakt. robit / uklad.: V.A. Zabolotnyi, O.V. Zabolotnyi. Kharkiv: KhAI, 2021. – 64 s.
5. Zabolotnyi V. A., Zabolotnyi O. V. Otsiniuvannia yakosti poverkhon detalei ta analiz tochnosti tekhnolohichnykh protsesiv vyhotovlennia detalei i skladannia vuzliv: navch. posib. do lab. praktykumu. Kharkiv: Nats. aerokosm. un-t im. M.Ye. Zhukovskoho «Kharkiv. aviats. in-t», 2018. 52 s.
6. Zabolotnyi O. Metrology, standardization and certification: Methodical recommendations for the laboratory works / O. Zabolotnyi, V. Zabolotnyi; National Aerospace University “Kharkiv Aviation Institute”, 2014. – 46 p.
7. Osnovy konstruiuvannia zasobiv vymiriualnoi tekhniky (pidruchnyk z Hryfom Ministerstva osvity i nauky Ukrainy) / Koshovyi M.D., Knysh V.O., Zabolotnyi O.V. ta inshi. Pidruchnyk. – Kharkiv: Nats. aerokosm. un-t «Khark. aviats. in-t», 2010. – 234 s.
8. Optymalne planuvannia eksperymentu pry doslidzhenni tekhnolohichnykh protsesiv, pryladiv i system (navch. posibnyk z Hryfom Ministerstva osvity i nauky Ukrainy) / Koshovyi M.D., Kostenko O.M., Pavlyk H.V., Zabolotnyi O.V. ta inshi. Navchalnyi posibnyk. – Kharkiv: Nats. aerokosm. un-t «Khark. aviats. in-t», 2010. – 161 s.
9. Osnovy standartyzatsii (pidruchnyk z Hryfom Ministerstva osvity i nauky Ukrainy) / Zabolotnyi O.V., Koshovyi M.D., Knysh V.O., ta inshi. Pidruchnyk. – Kharkiv: Nats. aerokosm. un-t «Khark. aviats. in-t», 2010. – 302 s.
10. Tsekhovskiyi M.V. Elektronna ta mikroprotsesorna tekhnika v metrolohii i informatsiino-vymiriualnykh systemakh: navch. posibnyk do lab. praktykumu / M.V. Tsekhovskiyi, O.V. Svitlychnyi, O.V. Zabolotnyi, V.O. Knysh – Kh.: Nats. aerokosm. un-t «Khark. aviats. in-t», 2009. – 80 s.
11. Zabolotnyi O.V. Metody ta zasoby vymiriuvannia fizyko-khimichnykh velychyn. Kontrol yakosti ta skladu pryrodnoho hazu: navch. posibnyk do kursovoho ta dyplomnoho proektuvannia / O.V. Zabolotnyi, M.V. Tsekhovskiyi – Kh.: Nats. aerokosm. un-t «Khark. aviats. in-t», 2008. – Ch. 1. – 92 s.
12. Zabolotnyi O.V. Napivprovidnykovi ta ridynnokrystalichni prystroi vidobrazhennia informatsii: navch. posibnyk do kursovoho ta dyplomnoho proektuvannia / O.V. Zabolotnyi, V.O. Knysh. – Kh.: Nats. aerokosm. un-t «Khark. aviats. in-t», 2008. – 47 s.
13. Zabolotnyi O.V. Metody ta zasoby vymiriuvannia fizyko-khimichnykh velychyn. Kontrol yakosti tverdykh i ridynnykh rechovyn: navch. posibnyk do kursovoho ta dyplomnoho proektuvannia / O.V. Zabolotnyi, O.V. Svitlychnyi. – Kh.: Nats. aerokosm. un-t «Khark. aviats. in-t», 2008. – Ch. 2. – 81 s.



14. Zabolotnyi V.A. Zabolotnyi O.V., Knysh V.O. Proiektuvannia tekhnolohichnykh protsesiv skladannia elektronnoi aparatury : navch. posibnyk. Kharkiv: Nats. aerokosm. un-t «Khark. aviats. in-t», 2008. – 64 s.

## **GRANTS AND PROJECTS:**

### **Participation in International and National Projects:**

## **PROFESSIONAL ACHIEVEMENTS AND AWARDS:**

### **Honorary Titles:**

Correspondent Member of the Engineering Academy of Ukraine

### **Distinctions, Awards, Prizes:**

Certificate of honor, National Aerospace University «Kharkiv Aviation Institute», [2024]  
Acknowledgement from the Head of the Kharkiv Regional State Administration, [2023]  
Commemorative medal for the defense of the hero city of Kharkiv, [2022]  
Certificate of Honor from the Cabinet of Ministers of Ukraine, [2020]  
Certificate of honor, National Aerospace University «Kharkiv Aviation Institute», [2019]  
Acknowledgement from the Ministry of Education and Science of Ukraine, [2019]  
Certificate of Honor from the Executive Committee of the Kharkiv City Council, [2018]

### **Membership in Professional Associations:**

Vice President of the Professional Association: “International Association of KhAI Alumni”

## **SELECTED PUBLICATIONS:**

### **Key Articles (Scopus, WoS, others):**

1. Zabolotnyi, O.V., Nikulin, S.S., Siroklyn, V.P., Koshevoy, N.D. (2025). Study of Quadcopter Flight Dynamics and Reactions to Controls and Disturbances Using Dedicated Test Bench. In: Lytvynov, O., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2024. ICTM 2024. Lecture Notes in Networks and Systems, vol 1473. Springer, Cham. Pp. 311-324. [https://doi.org/10.1007/978-3-031-94845-9\\_26](https://doi.org/10.1007/978-3-031-94845-9_26) (Scopus).



2. O. Zabolotnyi, V. Zabolotnyi and V. Siroklyn, "Investigation of the Possibility to Provide the Capacitive Moisture Sensing, Invariant to the Composition of a Bulk Substance or Dispersive Medium," 2024 IEEE 42nd International Conference on Electronics and Nanotechnology (ELNANO), Kyiv, Ukraine, 2024, pp. 482-487, doi: 10.1109/ELNANO63394.2024.10756910. **(Scopus)**.
3. Zabolotnyi, O.V., Tsyban, D.O. (2024). Current Trends in Bulk Solids Quantity Monitoring Inside the Large Capacity Industrial Tanks and Reservoirs. In: Nechyporuk, M., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2023. ICTM 2023. Lecture Notes in Networks and Systems, vol 1008. Springer, Cham. pp 541–552 [https://doi.org/10.1007/978-3-031-61415-6\\_46](https://doi.org/10.1007/978-3-031-61415-6_46) **(Scopus)**.
4. Zabolotnyi, O.V., Zabolotnyi, V.A., Koshevoy, N.D. (2024). Two Factor Dispersion Analysis of the Capacitive Grain Moisture Meters' Transfer Function. In: Nechyporuk, M., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2023. ICTM 2023. Lecture Notes in Networks and Systems, vol 1008. Springer, Cham. pp 513–524 [https://doi.org/10.1007/978-3-031-61415-6\\_44](https://doi.org/10.1007/978-3-031-61415-6_44) **(Scopus)**.
5. Zabolotnyi, O.; Zabolotnyi, V.; Koshevoy, N. Grain moisture measurement system with robust transfer function, invariant to the change of a grain matrix composition. INMATEH - Agricultural Engineering 2023, 69(1), Pp. 389-398. <https://doi.org/10.35633/inmateh-69-36>. **(Scopus)**.
6. O. Zabolotnyi, V. Zabolotnyi and N. Koshevoy, "Adequacy and Robustness Analysis of the Capacitive Moisture Meters' Static Function," 2022 IEEE 41st International Conference on Electronics and Nanotechnology (ELNANO), 2022, pp. 506-511, doi: 10.1109/ELNANO54667.2022.9927011. **(Scopus)**
7. Zabolotnyi, O.; Zabolotnyi, V.; Koshevoy, N. Capacitive Water-Cut Meter with Robust Near-Linear Transfer Function. Computation 2022, 10, 115. <https://doi.org/10.3390/computation10070115> (Scopus, Web of Science).
8. Zabolotnyi, O.V., Koshevoi M.D., (2020). An effective method of bulk materials moisture measurement using capacitive sensors. Journal of Stored Products Research. Vol. 89 (2020), article 101733. Pp. 1-12. <https://doi.org/10.1016/j.jspr.2020.101733> **(Scopus)**

### **Books, Chapters in Collective Monographs:**

1. Zabolotnyi, O. V. Alhorytmichni metody pidvyshchennia tochnosti vymiriuvannia vmistu volohy rehovyn dielektrychnoi pryrody [Tekst]: monohrafiia / O.V. Zabolotnyi, V. A. Zabolotnyi, M. D. Koshovyi. – Kharkiv : KhAI, 2023. – 352 s.



## **ADDITIONAL INFORMATION:**

### **Language Proficiency:**

Ukrainian, English

### **IT Skills:**

Microsoft Office / Zoom / Skype / Microsoft teams / Google meet / MathCAD / AutoCad / CorelDraw / Photoshop / Minitab /

### **Social and Community Activities:**

Charity during the full-scale invasion of russia.

